

NOV 29 1999

## Four New Species of the Genus *Platymantis* (Amphibia: Ranidae) from Luzon Island, Philippines

by

Walter C. Brown

Department of Herpetology, California Academy of Sciences  
San Francisco, California 94118

Angel C. Alcala

SUAKCREM, Silliman University,  
Dumaguete City, 6200 Philippines

and

Arvin C. Diesmos

College of Arts and Sciences, University of the Philippines,  
Los Baños, Laguna, Philippines

Four new species of *Platymantis* (*P. cagayanensis*, *P. indepressus*, *P. pseudodorsalis*, and *P. taylori*) are described. Two are from Mt. Banahao, one from the Central Cordillera, and one from the Sierra Madre, Luzon Island, Philippines. These species are in the *dorsalis* Group as diagnosed at present. The distinguishing characters and distribution of the Philippine species of the *dorsalis* Group are discussed.

Since 1994, our field work on Mt. Maquiling and Mt. Banahao (two mountain peaks in southern Luzon), the Central Cordillera, and Sierra Madre (northern Luzon, Philippines), has resulted in the recognition of 11 species of *Platymantis*, *dorsalis* Group as currently defined (Brown et al. 1997a). Seven of these have been described: *P. corrugatus*, *P. dorsalis*, *P. spelaus*, *P. levigatus*, *P. mimulus*, *P. naomii*, and *P. pygmaeus*.

These species are clearly distinguished by their advertisement calls, although they share a number of morphological features. These similarities, particularly of the digits, are the main reason for the failure of earlier herpetologists to recognize them as separate species.

### MATERIALS AND METHODS

Materials examined include: (1) holotypes of *Platymantis*: *P. corrugatus*, *P. dorsalis*, *P. mimulus*, *P. levigatus*, *P. spelaus*, *P. naomii*, and *P. pygmaeus*; (2) all specimens from recent collections on Mt. Banahao, Mt. Maquiling, Central Cordillera, and Sierra Madre that are referable to the *dorsalis* Group of species. These materials are in the custody of the following institutions: Museum National d'Histoire Naturelle (MNHN), the California Academy of Sciences (CAS or CAS-SU), Philippine National Museum (NMPH), Silliman University Biology Museum (SUBM).

Morphometric characters: snout-vent length (SVL), head length (HL), head breadth (HW), snout length (SnL), diameter of eye (ED), diameter of tympanum (TD), tibia length (TiL), and third finger length from proximal edge of basal tubercle (3FL) were measured to the nearest 0.1 mm, using a

Helios dial caliper. Other morphological characters include webbing of toes, tubercles of hands and feet, skin ornamentation, head shape, vomerine teeth, and color pattern.

Wide band spectrograms of the advertisement calls were prepared using a Kay Electrics Sonagraph (Model #550) and SIGNAL Sound Analysis System software. No temperature data were recorded.

## SYSTEMATIC SECTION

### *Platymantis cagayanensis* new species

Fig. 1

Holotype. — NMPH 6691, an adult female collected in disturbed Dipterocarp forest in Taggat Forest Reserve in Santa Praxedes Town, Central Cordillera, Cagayan Province, Luzon, at 50–100 m elevation, by A. C. Alcala and party, September 4, 1998.

Paratypes. — CAS 207447–207451, NMPH 6692–6693, and SUBM 2321–2322, collected at the same locality as the holotype on September 4, 1998.

Description of holotype. — An adult female (measurements in mm): SVL 34.7, HL 13.7, HW 13.8, SnL 6.2, ED 4.9, TD 2.1, TiL 19.5, 3FL 5.2; head relatively smooth; dorsum shagreened with many small tubercles and low, short, irregular ridges; venter and thighs smooth. Color of dorsum dark brown, with a dark X-mark at shoulder region; a dark interorbital bar; dark cross bars on fore and hind limbs. Color of venter cream; dark mottling on throat and breast.

DIAGNOSIS. — Advertisement call distinct (Fig. 5A); large size, based on SVL of small sample (Table 1); TD/SVL 6–9% (Table 2); a few tubercles and numerous short ridges on dorsum; dorsal ground color reddish brown to brown with darker patches associated with ridges.

DESCRIPTION. — SVL 26.4–30.8 mm for seven males and 34.7–37.4 mm for two females; HL 39–43% of SVL and HW 40–46% of SVL; snout rounded, upper jaw moderately protruding, SnL 17–19% of SVL; eye moderate, ED 14–16% of SVL; tympanum distinct, TD 6–9% of SVL; canthus rounded; lores slightly oblique and concave; vomerine teeth prominent, patches widely separated; fingers without webs; disks small and grooved; first, second, and fourth finger about equal in length; 3FL 15–16% of SVL; subarticular tubercles strongly protruding, blunt to pointed; one row of supernumerary tubercles; palmar area otherwise smooth; hind limbs long, TiL 55–62% of SVL; toes webbed at base, reaching distal edge of basal tubercle or beyond on fifth toe; disks of toes about equal to or slightly larger than those of fingers; inner metatarsal tubercle elongate; outer small and rounded; plantar area smooth; dorsum with a few tubercles and numerous short ridges; venter relatively smooth or with granules under head and throat; posterior thighs granular.

COLOR. — In life, ground color of dorsal and upper lateral surfaces reddish brown (Fig. 1). There are a few small, dark spots on dorsum, a dark bar behind the eye, and weak, dark bands on the hind limbs.

In preservative, dorsal ground color brown with small darker areas associated with pattern of ridges to predominately darker, almost blackish; upper lateral surfaces darker; a dark interorbital bar; venter creamy with brownish mottling anteriorly; limbs with dark, transverse bars.

REPRODUCTION. — Non-pigmented ovarian eggs, measuring about 1.75 mm in diameter, are present in one of the females. No other information is available.

ADVERTISEMENT CALL. — The advertisement call (Fig. 5A) is distinct. It sounds like “kree-eek-kree-eek.” The first, second, fourth and sixth parts (pulses) of each note are between about 1500 and 2000 Hz. The third and fifth parts are between 2700 and 3300 or 3400 Hz. The duration of each note ranges from about 0.25 to 0.27 seconds. The interval between notes ranges from about 0.52 to 0.55 seconds.



FIGURE 1. *Platymantis cagayanensis* (CAS 207448) showing characteristic color and ornamentation.

ETYMOLOGY. — The name is derived from that of the province, Cagayan, in the Central Cordillera, Luzon where the population was discovered.

COMPARISONS. — This species, in terms of size (SVL 26.0–35.0 mm), is one of the six Philippine species of the *dorsalis* Group that are termed large (Table 1). In general appearance this species is most similar to *Platymantis dorsalis*. However, the advertisement call is very different (Fig. 5A). For the call of *P. dorsalis*, see Brown et al. 1997b, fig. 1B.

HABITAT. — Forest floor in disturbed primary forest is the only known habitat for this species.

***Platymantis taylori* new species**

Fig. 2

Holotype. — NMPH 6684, an adult female collected by Arvin C. Diesmos in disturbed lowland rain forest in eastern Sierra Madre Mountains in Sitio Natapdukan, Barangay Didian, municipality of Palanan, Province of Isabela, Luzon Island on March 21, 1997.

Paratypes. — NMPH 6512–6513, 6524, 6526–6529, SUBM 2326, and CAS 207440–207442 from the same site as the holotype on March 19–23, 1997; and NMPH 6671, 6674–6675, 6687–6688, SUBM 2327, and CAS 207443–207446 Sitio Blos, Barangay Reina Mercedes municipality of Maconacon, Isabela Province about 50 km north of type locality.

Description of holotype. — A mature female (measurements in mm): SVL 35.5, HL 14.7, HW 13.9, SnL 6.5, ED 4.9, TD 3.3, TiL 22.0, 3FL 5.9; dorsum with several low, short ridges anteriorly; dorsum with dark interorbital bar and a few dark spots on body; limbs with dark crossbars; venter creamy with some dark spots anteriorly.

DIAGNOSIS. — Advertisement call distinct (Fig. 5B); large size, based on SVL of males (Table 1); TD/SVL 7–9% (Table 2); a few low ridges and tubercles on back; dorsal ground color light brown to grayish brown with scattered dark spots.

TABLE 1. Size categories (SVL in mm) for Philippine species of the *dorsalis* Group (N = number in sample).

Species	N	SVL	
		Range	Mean
Very large			
<i>P. spelaeus</i>			
Females	11	52.8–60.5	—
Males	6	41.5–46.9	—
Large			
<i>P. cagayanensis</i>			
Females	2	34.7–37.4	—
Males	7	26.4–30.8	28.9
<i>P. corrugatus</i>			
Females	12	35.2–50.8	45.7
Males	14	28.2–33.0	30.4
<i>P. dorsalis</i>			
Females	10	30.8–42.9	34.5
Males	16	26.7–35.0	29.4
<i>P. levigatus</i>			
Females	2	34.3–38.5	—
Males	3	29.5–30.3	—
<i>P. taylori</i>			
Females	10	30.7–39.8	36.8
Males	10	26.6–33.0	29.6
<i>P. pseudodorsalis</i>			
Females	—	—	—
Males	10	22.4–31.5	28.4
Intermediate			
<i>P. indepressus</i>			
Females	—	—	—
Males	12	23.6–27.2	25.7
Small			
<i>P. mimulus</i>			
Females	18	21.0–28.1	24.2
Males	32	18.4–25.8	21.9
<i>P. naomii</i>			
Females	14	21.6–28.0	24.3
Males	18	20.3–23.9	21.6
<i>P. pygmaeus</i>			
Females	1	15.0	—
Males	10	14.1–15.7	15.1

DESCRIPTION. — SVL 27.6–28.3 mm for three mature males and 37.3 mm for one mature female; HL 40–43% of SVL; HW 39–43% of SVL; SnL 18–19% of SVL; ED 14–15% of SVL; TD 7–9% of SVL; tympanum exposed; canthus rostralis rounded; lores deeply oblique, concave; vomerine teeth strongly protruding, patches widely separated, fingers without webs; fingers with grooved disks; first, second and fourth fingers nearly equal in length; third finger longest, 3FL 14–17% of SVL; subarticular tubercles large, strongly protruding but not pointed; one row of large supernumerary tubercles; metacarpal tubercles oval, inner and middle large and outer small; hind limbs long, TiL 57–63% of SVL; toes webbed at base: first, second and third to base of subarticular tubercle, to



TABLE 2. Proportional measurements as a percent of SVL for the species described.

	<i>P. cagayanensis</i>	<i>P. indeprensis</i>	<i>P. pseudodorsalis</i>	<i>P. taylori</i>
HL/SVL	39–43	37–45	39–43	40–43
HW/SVL	40–46	40–48	39–44	39–43
SnL/SVL	17–19	14–19	16–18	18–19
ED/SVL	14–16	12–16	14–16	14–15
TD/SVL	6–9	6–9	8–11	7–9
3FL/SVL	15–16	15–18	15–17	14–17
TiL/SVL	55–62	55–63	54–60	57–63

much below base on fourth, and to distal edge of basal tubercle on fifth; disks of toes with grooves, about equal to or slightly larger than those of fingers; subarticular tubercles, one on first and second toes, two on third and fifth, and three on fourth; inner metatarsal tubercle elongate and outer round, both strongly protruding; plantar area smooth; tubercle at heel absent; dorsum, head, snout, eyelids and limbs generally smooth, with few low tubercles and short, low ridges on back. Throat, chin and belly smooth; posterior thighs with small granules.

COLOR. — In life, ground color of dorsal and upper lateral surfaces light brown to grayish brown (Fig. 2). There are a few dark spots on the dorsum and dark bars on the lips. The venter has dark blemishes under the head and throat.

In preservative, dorsal background color light brown. A middorsal, light irregular band extends from snout to anal region. In this band and in areas bordering it are dark spots. A vague, dark W-shaped mark on the back at the shoulder level and a dark, interorbital band are present. Lips have dark bars and limbs dark crossbands. Chin, throat, breast and sides of body have dark spots. Posterior belly and ventral parts of thighs are whitish in color.



FIGURE 2. *Platymantis taylori* (NMPH 6512) showing characteristic color and ornamentation.

REPRODUCTION. — Reproduction has not been observed. However, the large, unpigmented eggs in the holotype are indicative of direct development, characteristic of all known species of the genus.

ADVERTISEMENT CALL. — The call (Fig. 5B) sounds like "kraak-kraak-kraak." Each note consists of several pulses between 1200–3900 Hz, with the terminal group very closely spaced. The duration of each note is about 0.3–0.4 seconds. The interval between notes is short, 0.13–0.14 seconds.

ETYMOLOGY. — This species is named for Edward H. Taylor who devoted the period 1912 to 1923 to the study of the Philippine herpetofauna.

COMPARISONS. — This species, like *P. cagayanensis*, is one of the large species of the Philippine *dorsalis* Group. The advertisement call (Fig. 5B) is very distinct, however.

HABITAT. — The specimens of this species were taken from the floor of disturbed primary forest.

### *Platymantis pseudodorsalis* new species

Fig. 3

Holotype. — NMPH 6689, an adult male, collected in upper Dipterocarp forest on Mt. Banahao, Luzon Island, Philippines by Roy Quiber and Ronnie Rizo on May 29, 1998.

Paratypes. — CAS 201536, 207455–207459, NMPH 6690, and SUBM 2323, collected between upper Dipterocarp and lower montane forest (600–1,200 m) on Mt Banahao, Luzon Island, Philippines.

Description of holotype. — A mature male (measurements in mm): SVL 30.7, HL 12.8, HW 13.5, SnL 5.3, ED 4.4, TD 3.0, TiL 18.0, 3FL 4.7; snout, head and dorsum smooth; upper eyelid with few low tubercles; a light vertebral line; upper surface of hind limbs with many tubercles; venter smooth; four small dark spots in inter-orbital space; skin on back uniformly brownish tan; dorso-lateral area with interrupted, dark stripe; sides of body dark brown; upper surfaces of hind limbs with dark mottling.

DIAGNOSIS. — Advertisement call distinct (Fig. 5C); large size, based on SVL of males (Table 1); TD/SVL 8–11% (Table 2); dorsum nearly smooth or with a few, low ridges and tubercles; dorsal ground color light to medium brown, lighter than upper lateral surface.

DESCRIPTION. — SVL 22.4–31.5 mm for 10 males; HW 39–44% of SVL; snout rounded to somewhat round pointed; upper jaw moderately protruding; SnL is 16–18% of SVL; eye large, ED 14–16% of SVL; tympanum distinct, TD 8–11% of SVL; canthus rounded; lores slightly oblique and concave; fingers without webs, with small disks and narrow dermal flanges, first finger about as long or slightly longer than second, both somewhat shorter than fourth, third finger longest, 3FL 15–17% of SVL; subarticular tubercles large, strongly protruding; inner and middle metacarpal tubercles large, oval; outer small and elongate; one row of supernumerary tubercles; hind limbs long, TiL 54–60% of SVL; toes with minute webs; first and second toes about to base of tubercle, third about to middle of basal tubercle, fourth much below basal tubercle, and fifth to mid-point or distal edge of basal tubercle; disks of toes slightly larger than those of fingers; subarticular tubercles oval, strongly protruding, inner metatarsal tubercles high, elongate, outer small, round, strongly protruding; plantar area smooth; snout and head generally smooth; upper eyelids with few to many low tubercles; back smooth or with a few low, short ridges; upper surfaces of limbs usually with many low tubercles; throat and belly smooth.

COLOR. — In life, ground color of dorsum light brown to medium brown, somewhat darker on the upper lateral surfaces (Fig. 3). Some specimens have a pale vertebral stripe. The hind limbs have dark transverse bands. There is a pale line on the anterior forearm. The venter has dark blemishes anteriorly, sometimes forming a network.

In preservative, general color above light brown to brownish tan; head and back lighter than sides of body; most specimens with a light vertebral line; two or more irregular dark spots in inter-orbital space, dark spots on head between eyes and nostrils in most specimens; throat, breast and anterior



FIGURE 3 *Platymantis pseudodorsalis* (NMPH 6689) showing characteristic color and ornamentation.

belly with dark concentrations of pigments, sometimes forming a network; posterior belly generally immaculate; a light line in all specimens either continuous or broken on the antero-ventral portion of forearm.

REPRODUCTION. — Nothing is known about this species.

ADVERTISEMENT CALL. — The call of this species sounds like “tsolek-tsolek” (Fig. 5C). Each note is divided into three parts (pulses). The first and third parts are between 2500 and 3100 to 3200 Hz. The middle part is between 1400 and 2100 Hz. The duration of each note is very uniform between 0.12 and 0.13 seconds. The intervals between notes range from about 0.8 to 1.2 seconds.

ETYMOLOGY. — Species name is based on the similarity of specimens with *P. dorsalis*.

ECOLOGICAL NOTE. — This species inhabits the forest floor at elevations of 700 to 1,200 m from the upper Dipterocarp forest to lower montane forest. It has been observed from January to September, but calls are generally heard from May to July.

COMPARISONS. — This species, like *P. indepressus*, has been confused with *P. dorsalis*. It differs from both *P. dorsalis* and *P. indepressus* in the very different advertisement call (Fig. 5C). In size it is most similar to *P. indepressus* (Table 1).

RANGE. — Known only from Mt. Banahao, Quezon Province on Luzon Island.

### *Platymantis indepressus* new species

Fig. 4

Holotype. — CAS 201196, an adult male collected in submontane forest on Mt. Banahao, Luzon Island at about 1,080 m by A. C. Diesmos, April 20, 1996.

Paratypes. — CAS 201013–201014, 201178–201183, 201185, 207452–207454, SUBN 2325, NMPH 6685–6686 Mt. Banahao, Luzon Island, Philippines (850–1,300 m in upper Dipterocarp and montane forest).





FIGURE 4 *Platymantis indepressus* (CAS 201183) showing characteristic color and ornamentation.

Description of holotype. — An adult male (measurements in mm): SVL 27.0, HL 10.1, HW 11.4, TiL 14.4, SnL 4.1, ED 3.8, TD 1.9, 3FL 4.1; snout, upper eyelids, upper lateral surfaces and limbs with tubercles; dorsum with tubercles and a few short ridges anteriorly; venter relatively smooth.

DIAGNOSIS. — Advertisement call distinct (Fig. 5D); intermediate size, based on SVL of males (Table 1); TD/SVL 6–9% (Table 2); dorsum with scattered tubercles and low ridges; dorsal ground color mottled tannish and blackish brown.

DESCRIPTION. — SVL 21.5–27.3 mm for 14 males (females not identified); HW 40–48% and HL 37–45% of SVL; snout rounded to round pointed; upper jaw moderately protruding; SnL 14–19% of SVL, eye large, ED 12–16% of SVL; tympanum distinct TD 6–9% of SVL; canthus rounded; lores only slightly oblique and concave; fingers without webs; disks small with narrow, dermal flanges; first finger about as long as or slightly longer than second, both somewhat shorter than fourth; 3FL 15–18% of SVL; subarticular tubercles large, strongly protruding, rounded; inner and middle metacarpal tubercles large, oval; outer moderate, elongate; one row of supernumerary tubercles; hind limbs long; TiL 55–63% of SVL toes with minute webs: first, second, and third toes about to base of tubercle on inside, fifth toe to midpoint or beyond basal tubercle; disks of toes slightly larger than those of fingers; subarticular tubercles oval, strongly protruding; inner metatarsal tubercles high, elongate, outer small, round, strongly protruding; plantar area smooth; snout, head, and upper eyelids with numerous, flattish tubercles; dorsum posterior to eyes with scattered tubercles, sometimes tubercles fused to form a jumbled pattern of short ridges; throat and belly smooth; proximal half of posterior thighs granular.

COLOR. — In life, ground color of dorsal and upper lateral surfaces is mottled blackish brown (Fig. 4). Some specimens have a pale vertebral stripe. The limbs have dark transverse bands. There are dark blemishes under the head and throat and sometimes a few on the belly.

In preservative, part of interorbital space lighter than the rest of head; dorsum mottled blackish brown and tannish brown or occasionally with a narrow, pale vertebral stripe; lateral surfaces with



blotches of grayish brown to grayish tan, mottled brown under head and throat, more cream with or without scattered brown spots on belly; distinct crossbars on limbs.

REPRODUCTION. — Nothing is known for this species. Females have thus far eluded capture or identification.

ADVERTISEMENT CALL. — The calls sound like “eyak-eyak.” The main part of each note is between 2500 and 3500 Hz, closing with a series of pulses ranging from 2000 to 4000 Hz. The duration of each note is between 0.21 and 0.31 seconds. Each series is usually two or three notes at intervals from about 0.18 to 0.31 seconds (Fig. 5D). The males tend to call while perching on more exposed spots on the forest floor.

ETYMOLOGY. — The species name is Latin for “unobserved” or “undiscovered” and refers to the fact that this species was confused with *P. dorsalis*.

ECOLOGICAL NOTE. — The species inhabits the forest floor from upper Dipterocarp to lower montane forest on Mt. Banahao, Quezon Province, Luzon Island. Males have been observed during the rainy months from April through August.

COMPARISONS. — This species from Mt. Banahao has been confused with *P. dorsalis*. The distinct advertisement call (Fig. 5D) and intermediate size (Table 1) distinguish it from *P. dorsalis*.

RANGE. — Known only on Mt. Banahao and Mt. San Cristobal.

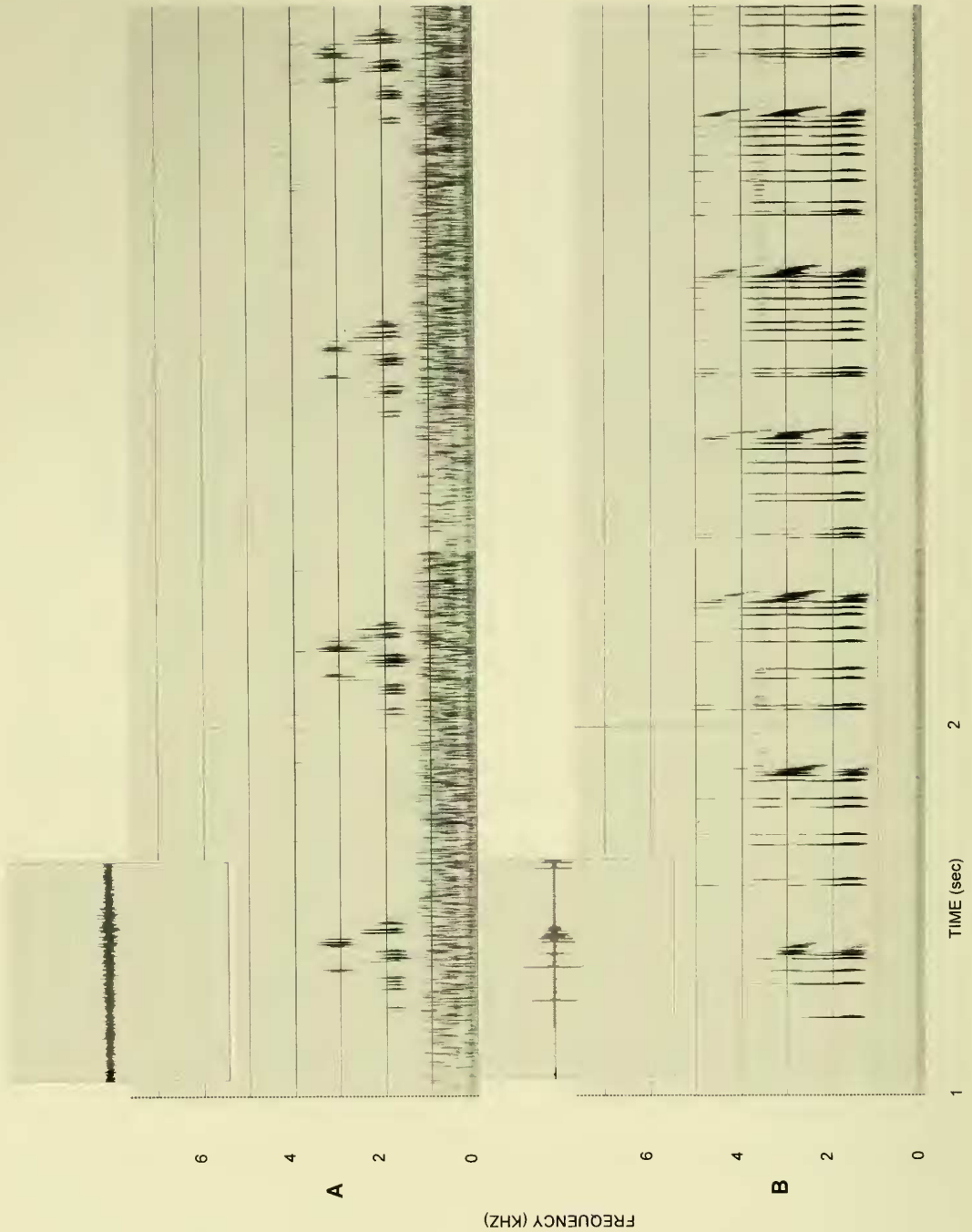
DISCUSSION

The *dorsalis* Group as currently diagnosed includes eleven species from the Philippines and sixteen from Melanesia, New Guinea, and Palau Islands (Table 3). These species are characterized by: (1) blunt digits or small, nearly undilated disks, (2) subtending parts of digits narrow, (3) subarticular tubercles strongly protruding and usually pointed, (4) terminal phlanges pointed not T-shaped. Pending completion of phylogenetic studies of platymantine frogs, the probable relationships among the species of the *dorsalis* Group is nothing more than a guess.

The Philippine species (*P. corrugatus*, *P. dorsalis*, *P. mimulus*, *P. pygmaeus*, *P. spelaus*, *P. levigatus*, *P. naomii*, *P. indepressus*, *P. pseudodorsalis*, and *P. taylori*) are distributed in the Greater Mindanao, Greater Negros-Panay, Greater Luzon, and Mindoro Island groups. They are differentiated by their advertisement calls and some morphological characters. They also are separated into

TABLE 3. Species currently referred to the *dorsalis* Group of *Platymantis*.

Species known to occur only on islands outside of the Philippines	Species known to occur only in the Philippines
<i>P. acrochordus</i> (Solomon Is.)	<i>P. cagayanensis</i> (Luzon)
<i>P. aculeodactylus</i> (Solomon Is.)	<i>P. corrugatus</i> (most islands)
<i>P. akarithymus</i> (Bismarck Is.)	<i>P. dorsalis</i> (most islands)
<i>P. boulengeri</i> (Bismarck Is.)	<i>P. indepressus</i> (Luzon)
<i>P. gilliardi</i> (Bismarck Is.)	<i>P. levigatus</i> (Tablas and Sibuyan Is.)
<i>P. macrops</i> (Solomon Is.)	<i>P. mimulus</i> (Luzon)
<i>P. mimulus</i> (Bismarck Is.)	<i>P. naomii</i> (Luzon)
<i>P. myersi</i> (Solomon Is.)	<i>P. pseudodorsalis</i> (Luzon)
<i>P. papuensis</i> (New Guinea and satellites)	<i>P. pygmaeus</i> (Luzon)
<i>P. parkeri</i> (Solomon Is.)	<i>P. spaeleus</i> (Negros)
<i>P. pelevensis</i> (Palau Is.)	<i>P. taylori</i> (Luzon)
<i>P. rhipiphaleus</i> (Bismarck Is.)	
<i>P. schmidtii</i> (Bismarck Is.)	
<i>P. solomonis</i> (Solomon Is.)	
<i>P. vitianus</i> (Fiji Is.)	
<i>P. weberi</i> (Solomon Is.)	



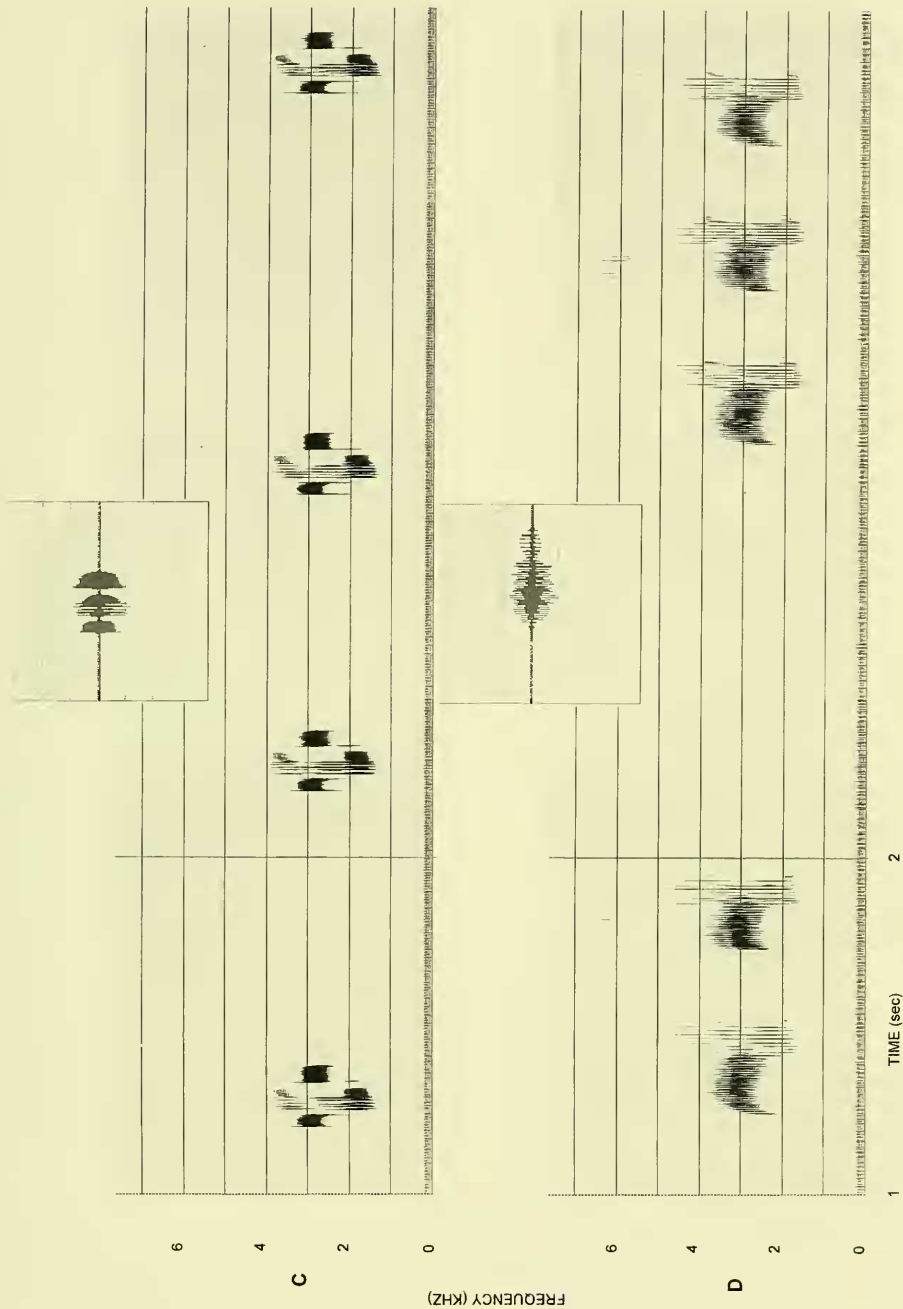


FIGURE 5. Audiospectrograms of (A) *Platymantis cagayanensis*, CAS 207450; (B) *Platymantis taylori*, NMPH 6524; (C) *Platymantis pseudodorsalis*, CAS 207452; (D) *Platymantis indepressus*, CAS 201178. Tapes of the calls are deposited in the Department of Herpetology, California Academy of Sciences, San Francisco. Temperature data were not recorded.

relatively distinct subgroups, based on SVL at maturity (Table 1). Very large includes only one species, *Platymantis spelaeus*. Large includes six species, *P. cagayanensis*, *P. corrugatus*, *P. dorsalis*, *P. levigatus*, *P. pseudodorsalis*, and *P. taylori*. Small includes three species, *P. mimulus*, *P. naomii*, and *P. pygmaeus*.

*Platymantis spelaeus* does not overlap any of the other species in SVL. There is extensive overlap in SVL for the six species classified as large, and both range and means of SVL are given for both males and females for those species represented by sufficiently large samples (Table 1). Of the large species, *P. cagayanensis*, *P. dorsalis*, *P. pseudodorsalis*, and *P. taylori* are most similar both in size and appearance and were first recognized on the basis of distinct advertisement calls. *Platymantis corrugatus*, however, is readily recognized because of the blunt digital tips and distinctive color pattern; and *P. levigatus* from its very smooth skin and, to some extent, color pattern. *Platymantis indepressus*, although long confused with *P. dorsalis*, is intermediate in SVL (Table 1). The three species (*P. mimulus*, *P. naomii*, and *P. pygmaeus*) categorized as small do not overlap with other species in SVL.

Populations of *P. dorsalis* on Luzon and Negros have similar calls and are considered the same species. However, recent observations on advertisement calls of some populations in Leyte, Samar, Mindoro, and western Mindanao indicate that populations in these areas currently referred to *P. dorsalis* may belong to separate species. We are conducting field work on these populations and analyzing calls at the present time.

#### ACKNOWLEDGMENTS

We are indebted to Arne Jensen, Nordic Agency for Development and Ecology (NORDECO) and W. Pollisco, Director of the Protected Areas Bureau of the Department of Environment and Natural Resources, Philippines for making available specimens of *P. taylori*. We also wish to thank Robert Drewes, Jens Vindum, and Andrea Jesse (CAS) for their assistance.

#### LITERATURE CITED

ALCALA, A. C., W. C. BROWN, AND A. C. DIESMOS. 1998. Two new species of the genus *Platymantis* (Amphibia: Ranidae) from Luzon Island, Philippines. *Proceedings of the California Academy of Sciences* 50(17):381–388.

BROWN, W. C., R. M. BROWN, AND A. C. ALCALA. 1997a. Species of the *hazela* Group of *Platymantis* (Amphibia: Ranidae) from the Philippines, with descriptions of two new species. *Proceedings of the California Academy of Sciences* 49(11):405–421.

BROWN, W. C., A. C. ALCALA, AND A. C. DIESMOS. 1997b. A new species of the genus *Platymantis* (Amphibia: Ranidae) from Luzon Island, Philippines. *Proceedings of the Biological Society of Washington* 110(1):18–23.

DIESMOS, A. C. 1998. The amphibian faunas of Mount Banahao, Mount San Cristobal, and Mount Maquiling, Luzon Island, Philippines. Thesis (M.Sc.) in Wildlife Studies, University of the Philippines, Los Baños, Laguna. Unpublished manuscript.